

addresses of respective start sectors, each identifying a start sector of a respective user track; encoding means for encoding both said user information and said TOC information in a long distance error correction code having at least eight parity symbols; modular means for modulating the encoded user and TOC information; and recording means for recording the modulated, encoded TOC information in said at least one TOC track in either said lead-in area or said program area and the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.646 μm and 1.05 μm , wherein said optical disk has a linear velocity in the range of 3.3 m to 5.3 m per second during a playback operation.--

REMARKS

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103 or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Claims 1-66 and amended claims 67-72 are in this application.

Claims 1-66 were allowed.

Claims 67-72 were rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. Claims 67-72 have been amended herein. As a result, it is respectfully requested that the 35 U.S.C. 251 rejection be withdrawn.

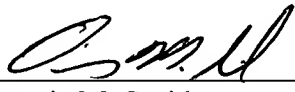
Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

In view of the foregoing, entry of this amendment, favorable reconsideration and withdrawal of the rejection of claims 67-72 and the allowance of this application with claims 1-72 are respectfully requested.

Please charge any fees incurred by reason of this response and not paid herewith to Deposit Account No. 50-0320.

Respectfully submitted,
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“VERSION WITH MARKINGS TO SHOW CHANGES MADE.”

IN THE CLAIMS

Please amend claims 67-72 by rewriting the same to the following:

--67. (Amended) A method of recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said method comprising the steps of providing user information for recording in a plurality of sectors in user track regions; providing [control] table of contents (TOC) information for recording in a plurality of sectors in at least one [control information region] TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding both said user information and said [control] TOC information in a long distance error correction code having at least eight parity symbols; modulating the encoded user and [control] TOC information; recording the modulated, encoded [control] TOC information in said at least one [control information region] TOC track in either said lead-in area or said program area; and recording the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.646 μm and 1.05 μm and with a linear density in the range between 0.237 μm per bit and 0.387 μm per bit,

--68. (Amended) Apparatus for recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said apparatus comprising: input means for providing user information for recording in a plurality of sectors in user track regions and [control] table of contents (TOC) information for recording in a plurality of sectors in at least one [control information region] TOC track, said TOC information including addresses of respective start sectors, each

identifying a start sector of a respective user track; encoding means for encoding both said user information and said [control] TOC information in a long distance error correction code having at least eight parity symbols; modular means for modulating the encoded user and [control] TOC information; and recording means for recording the modulated, encoded [control] TOC information in said at least one [control information region] TOC track in either said lead-in area or said program area and the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.646 μm and 1.05 μm and with a linear density in the range between 0.237 μm per bit and 0.387 μm per bit.-

--69. (Amended) A method of recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said method comprising the steps of: providing user information for recording in a plurality of sectors in user track regions; providing [control] table of contents (TOC) information for recording in a plurality of sectors in at least one [control information region] TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding both said user information and said [control] TOC information in a long distance error correction code having at least eight parity symbols; modulating the encoded user and [control] TOC information; recording the modulated, encoded [control] TOC information in said at least one [control information region] TOC track in either said lead-in area or said program area; and recording the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.7 μm and 0.9 μm .--

--70. (Amended) Apparatus for recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said apparatus comprising: input means for providing user information for

recording in a plurality of sectors in user track regions and [control] table of contents (TOC) information for recording in a plurality of sectors in at least one [control information region] TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding means for encoding both said user information and said [control] TOC information in a long distance error correction code having at least eight parity symbols; modular means for modulating the encoded user and [control] TOC information; and recording means for recording the modulated, encoded [control] TOC information in said at least one [control information region] TOC track in either said lead-in area or said program area and the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.7 μm and 0.9 μm .-

--71. (Amended) A method of recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said method comprising the steps of: providing user information for recording in a plurality of sectors in user track regions; providing [control] table of contents (TOC) information for recording in a plurality of sectors in at least one [control information region] TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding both said user information and said [control] TOC information in a long distance error correction code having at least eight parity symbols; modulating the encoded user and [control] TOC information; recording the modulated, encoded [control] TOC information in said at least one [control information region] TOC track in either said lead-in area or said program area; and recording the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.646 μm and 1.05 μm ,

wherein said optical disk has a linear velocity in the range of 3.3 m to 5.3 m per second during a playback operation.--

--72. (Amended) Apparatus for recording data on an optical disk having a diameter less than 140 mm and a recording area divided into a lead-in area, a program area and a lead-out area, said apparatus comprising: input means for providing user information for recording in a plurality of sectors in user track regions and [control] table of contents (TOC) information for recording in a plurality of sectors in at least one [control information region] TOC track, said TOC information including addresses of respective start sectors, each identifying a start sector of a respective user track; encoding means for encoding both said user information and said [control] TOC information in a long distance error correction code having at least eight parity symbols; modular means for modulating the encoded user and [control] TOC information; and recording means for recording the modulated, encoded [control] TOC information in said at least one [control information region] TOC track in either said lead-in area or said program area and the modulated, encoded user information in said user track regions in said program area with a track pitch in the range between 0.646 μm and 1.05 μm , wherein said optical disk has a linear velocity in the range of 3.3 m to 5.3 m per second during a playback operation.--